

REMARKS

The Examiner's recognition of Applicants' invention by the allowance of claims 13-20 and the indication of allowable subject matter in claims 3-7, 11 and 12 is gratefully acknowledged.

Claim Rejection under 35 USC § 103

Claims 1, 2, and 8-10 were rejected under 35 U.S.C. § 103 as unpatentable over United States Patent No. 5,785,913, issued to Clark, Jr. et al. in 1998, in view of United States Patent No. 6,165,612, issued to Misra in 2000.

Clark et al. describes a polymer material containing ferrite particles, col. 4, lines 21-22. Ferrite is composed of an iron oxide compound, col. 4, lines 29-32, and is a nonmetallic, ceramic-like compound, see The American Heritage Dictionary, fourth edition. In contrast, Applicants' invention relates to a material that contains metal particles. Also, the rejection points to the optional feature in Clark et al. wherein the ferrite particle may include a thermally conductive coating, such as silver, gold or copper, col. 5, lines 21-42. In contrast, Applicants' polymer-based material comprises metal particles having a dielectric coating that electrically insulate the particles. Clark et al. does not disclose metal particles or a dielectric coating, and so does not teach or suggest Applicants' invention.

Misra fails to make up the deficiency. Misra is mainly directed to a polymer material that includes particles composed of alumina or boron nitride, both nonmetals, see col. 5, lines 9-15, and col. 6, lines 22-25. Misra also mentions metal powders, col. 5, line 7, without example, and

apparently intending that they be mixed with the nonmetal particles. However, nothing in Misra even remotely points to metal particles that comprise a dielectric coating. Thus, Misra does not show Applicants' invention.

The combination of these references thus fails to point to Applicants' invention. Clark et al. is directed to oxide particles, as are the examples in Misra. Misra does not contemplate a coating, whereas the thermally conductive metal coating in Clark et al. is readily distinguished from Applicants' dielectric coating. Thus, even when combined, there is nothing to point the practitioner to apply a dielectric coating to electrically insulate the metal particles, so as to arrive at Applicants' invention.

Claim 1 is directed to Applicants' polymer-based material that includes metal particles dispersed in a polymer matrix material. Clark et al. uses nonmetal ferrite, whereas Misra is mainly directed to alumina or boron nitride. Moreover, claim 1 calls for a dielectric coating on the particles to electrically insulate them from each other. The metal coatings in Clark et al. enhance conductivity, whereas nothing in Misra contemplates any such coating. Therefore, the references, even when combined, do not suggest Applicants' material as set forth in claim 1.

Claims 2 and 8-10 are dependent upon claim 1 and so not taught or suggested for the reasons set forth with regard to that claim.

Accordingly, it is respectfully requested that the rejection of claims 1, 2 and 8-10 based upon Clark et al. and Misra be reconsidered and withdrawn, and that the claims be allowed.

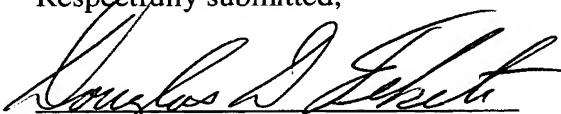
Conclusion

Claims 3-7, 11 and 12 were indicated as allowable, but were objected to as dependent upon a rejected claim. For the reasons above, claim 1 is now believed to be allowable. Therefore, it is requested that the objection be withdrawn, and the dependent claims be allowed.

It is believed that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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